

NOTES ON *TULBAGHIA*: 3. ON THE STATUS OF *TULBAGHIA CERNUA* AVÉ-LALL.

CANIO G. VOSA

(Botany School, Oxford, England)

ABSTRACT

Tulbaghia cernua Avé-Lall. is a legitimate name and its type specimen has been located in the Herbarium of the Komarov Botanical Institute, Leningrad. The differences between *T. alliacea* L.f. and *T. cernua* Avé-Lall. are outlined.

UITTREKSEL

NOTAS OOR *TULBAGHIA*: 3. DIE STATUS VAN *TULBAGHIA CERNUA* AVÉ-LALL.

Tulbaghia cernua Avé-Lall. is 'n wettige naam en die tipe-eksemplaar is in die Herbarium van die Komarov Botaniese Instituut, Leningrad, gevind. Die verskille tussen *T. alliacea* L.f. en *T. cernua* Avé-Lall. word geskets.

The recent publication of a revision of the genus *Tulbaghia* by Burbidge (1978) has raised the question of the legitimacy of the name *Tulbaghia cernua* Avé-Lallemant.

This name was validly published in *Indice Semin. h. Petr.* 9: Append. p. 25 [1843], 1844 by Avé-Lallemant. Shortly afterwards a more complete description, including a list of synonyms and a short discussion appeared in *Bull. Class Phys. Math. Acad. Petersb.* 3: 201-208 (1844).

The short original description was also published in *Linnaea* 18: 222 (1844).

Avé-Lallemant's description was based on living plants given to him by C. F. Ecklon (. . . bulbos a nos misit cl. Ecklon . . .) which flowered in St. Petersburg, now Leningrad, in July 1842, and on herbarium specimens one of which he had seen in Kew in 1823, and two others, apparently collected by J. F. Drège in the Cape.

In his second more complete description Avé-Lallemant cited *T. alliacea* L.f. forma α Drège and *T. ludwigiana* forma macrior according to Kunth. *Enum* 4: 483 (1843) as synonyms.

In the light of the current *International Code of Botanical Nomenclature* (1978, art. 63.1) a name is superfluous or illegitimate when accepted species are cited as synonyms. In the case of *T. cernua* Avé-Lall. this is certainly not the case and I propose that the name should be considered valid.

Accepted for publication 21st May, 1980.

In my own cytotaxonomic account of the genus *Tulbaghia* (Vosa, 1975) I noted that the type specimen of *T. cernua* was not known to have been preserved. This was based on the negative results of my enquiries on the existence of such a specimen addressed to the Curator of the Herbarium of the Komarov Botanical Institute in Leningrad and to the Academy of Sciences of the Soviet Union, over several years.

However, during my recent visit to the Komarov Botanical Institute in June and July 1979, I was able to look through the collections of African Liliaceae in the Herbarium. In one of the cupboards, in various folders and under different generic names, I discovered three specimens of *Tulbaghia cernua*, clearly labelled and obviously used by Avé-Lallemant for his description, and derived from his cultivated plants.

I propose to consider specimen No. 73.6, the most complete of the three, as the holotype of *Tulbaghia cernua* Avé-Lallemant and the other two as isotypes. Specimen No. 73.6 is illustrated in Figure 1.

Figures 2 and 3 show the full size inflorescence and the label of the specimen, respectively.

The typification of *Tulbaghia cernua* is as follows:

Tulbaghia cernua Avé-Lallemant in Indice Semin. h. Petr. 9: 25 [1843], 1844; Bull. Class. Phys. Math. Acad. Petersb. 3: 202-203 (1844); Linnaea 18: 222 (1844); Vosa in Annali Bot. (Roma) 34: 71-75 (1975). Type: 73.6 (LE!). Syn.: *T. alliacea* L.f. var. *affinis* Bak. sensu Link Enum. alt. 1: 310 (1821); *T. alliacea* L.f. forma $\propto$ Drège sensu Kunth. Enum. 4: 483 (1843); *T. ludwigiana* Harv. forma *macrior*, Kunth. Enum. 4: 483 (1843); *T. campanulata* (N.E. Br. in Kew Bull. 175: 136 (1901). Type: Cape, Queenstown Div., Mts. near Queenstown, Galpin 1660 (K!).

Icon.: Wild Flowers of the E. Cape Province by Batten and Bokelmann, Pl. 6, fig. 7 (1966) as *T. alliacea* L.f.; Vosa in Annali Bot. (Roma) 34: 75-76 (1975).

DIFFERENCES BETWEEN *T. ALLIACEA* L.f. AND *T. CERNUA* AVÉ-LALL.

Distribution

T. alliacea L.f. is found only in a restricted area in the winter rainfall region of the Cape, whilst *T. cernua* Avé-Lall. is found exclusively in the summer rainfall region on the Eastern Cape, Transkei and Natal where diploids and tetraploids are found and the Transvaal Drakensberg, where only tetraploid forms have been found so far.

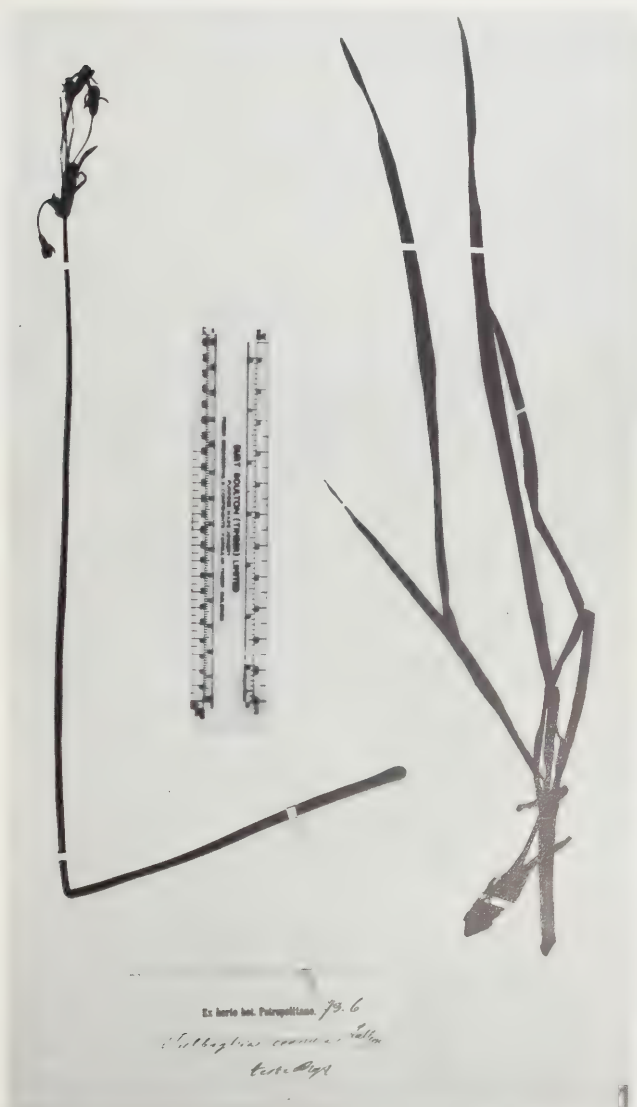


FIG. 1.

The type specimen of *Tulbaghia cernua* Avé-Lall. No. 73.6, present in the Herbarium of the Komarov Botanical Institute, Leningrad (LE).

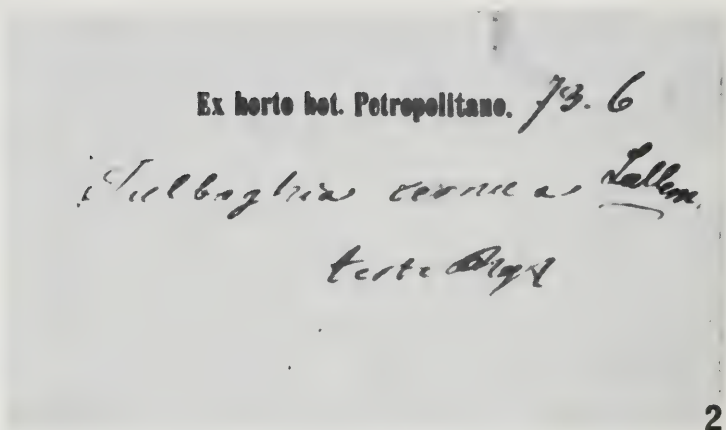


FIG. 2.

The label of the type specimen of *T. cernua* Avé-Lall. reproduced natural size.



FIG. 3.

The inflorescence of the type specimen of *T. cernua* Avé-Lall. reproduced natural size.

Morphology

	<i>T. alliacea</i>	<i>T. cernua</i>
<i>perianth segments</i>	channel-shaped, rather thin and convolute, almost spatulate at the apex, slightly reflexed or not at all.	deltoid, acute, usually reflexed.
<i>corona</i>	fleshy, cylindrical or slightly funnel-shaped, shallowly trilobed with the lobes cleft at the apex.	fleshy, urceolate, triangular in section with round or somewhat flat corners, forming a Y-shaped slit at the apex.

Tulbaghia alliacea L.f. has always a strong alliaceous smell but most plants of *T. cernua* Avé-Lall. are inodorous or have only a slight smell.

Cytology

The two species also differ in chromosome morphology: the karyotype of *T. alliacea* belongs to Group 1 (Vosa, 1975), where the nucleolar attachment is distally located on the short arm of chromosome 2; the karyotype of *T. cernua* belongs to Group 2 (Vosa, l.c.), where the nucleolar attachment is located in an interstitial position on chromosome 6. The basic chromosome number is $n = 6$ for both species.

ACKNOWLEDGEMENTS

I wish to thank Prof. Armen Takhtajan, Director of the Komarov Botanical Institute, Leningrad, and his staff for kindness and for the use of facilities in the Institute, and Mr Frank White, Curator of the Fielding Druce Herbarium, Oxford, for helpful discussions.

REFERENCES

- BURBIDGE, R. B., 1978. A revision of the genus *Tulbaghia* (Liliaceae). *Notes R. bot. Gdn. Edinb.* **36**: 77–103.
- VOSA, C. G., 1975. The cytotaxonomy of the genus *Tulbaghia*. *Annali Bot. (Roma)*. **34**: 47–121.